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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WASHINGTON, JAMARES

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/791,385	Applicant(s) SHIGETA, NORIMASA	
	Examiner JAMARES WASHINGTON	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-6,12,14,15,18,19,22 and 23 is/are allowed.
- 6) ☒ Claim(s) 16,17 and 20 is/are rejected.
- 7) ☒ Claim(s) 2,7-11 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's amendments and response received on March 14, 2008 have been entered. Claims 1-12 and 14-23 are currently pending. Claim 13 has been canceled and claims 14-23 added by amendment. Amendments and response are addressed hereinbelow.

Claim Objections

1. Claims 2, 10 and 11 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claim 2, claim 1 sets forth the subject matter as claimed in claim 2. Merely adding "a plurality of areas overlapping with one another in coordinates of the first color space" rather than "the plurality of areas are arranged in lattice configuration and partially overlay each other in the first color space" (as called for in claim 1) does not change the scope of the claimed subject matter because a color space actually represents colors as sets of coordinates.

Regarding claim 10, claim 7 sets forth the whole function derivation step combines the partial functions which are areas adjacent and overlapping with each other in the first color space. Claim 10 fails to further limit the subject matter of claim 7 because the claim merely calls for the whole function derivation step combining the partial functions of areas which are adjacent to each other in the first color space (as previously claimed).

Regarding claim 11, claim 10 sets forth (by its dependence on claim 7) the subject matter wherein the adjacent areas are overlapping, therefore claim 11 fails to further limit claim 10.

Claim Rejections - 35 USC § 112

2. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding the limitation “wherein the polynomial function is at least a second order polynomial function” finds no support in the original disclosure by applicant. Examiner fails to ascertain how one of ordinary skill in the art could reasonably derive or infer such a conclusion from the originally presented disclosure. Applicant is asked to either site the portion of the original disclosure which supports the claimed subject matter or cancel the subject matter to comply with the written description requirement.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koen Vande Velde (US 7265870 B2).

Regarding claim 16, Velde et al discloses a method of deriving a color conversion relation between a first color space and a second color space, comprising:

an area defining step that assigns a plurality of divisional points to a lattice (Col. 18 lines 11-13 wherein an ordered set of stimuli are chosen in the trajectory space (RGB color space)), thereby separating the first color space into a plurality of areas (Col. 18 lines 11-14 in which the color space is divided into $(n1-1)*(N2-1)*(n3-1)$ hexahedrons);

a partial function derivation step that extracts one or more lattice points from each of the areas and derives, for each area defined by the area defining step, a partial function representative of a color conversion between lattice points of the area of the first color space and corresponding points of the second color space (Col. 18 lines 26-54 wherein eight vertices are extracted from each hexahedron to determine the conversion values from RGB to $T_R T_G T_B$); and

Velde et al fails to expressly disclose a whole function derivation step that combines the partial functions of each said area to derive a whole function representative of the color conversion relation between the entire said first color space and the second color space.

However, given the above disclosure describing how the color space is divided into several hexahedrons in which the vertices of each hexahedron are converted between color spaces and interpolation is used to determine the points between the lattice points, it would have been obvious and common sense to one of ordinary skill in the art to combine the polynomial functions for each individual hexahedron to determine the color conversion characteristics for the first color space in its entirety since the hexahedrons come together to form the first color space.

Regarding claim 17, Velde discloses the method of claim 16, wherein the plurality of divisional points are evenly spaced throughout the first color space (Fig. 3A depicts an example of the color space division. Using the logic displayed in Fig. 3, in which the divisional points are situated to divide the color space into even portions, for the hexahedrons as rejected in claim 16 above).

Double Patenting

5. Claims 7, 8 and 9 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 1, 5 and 6 respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is

proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Allowable Subject Matter

6. Claims 1, 3-6, 12, 14, 15, 18, 19, 22 and 23 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

The examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any subsequent prior art which teaches a color conversion relation derivation method and apparatus which implements the method comprising an area forming step that forms a plurality of areas filling the first color space such that the plurality of areas are arranged in lattice configuration and partially overlay each other in the first color space and a whole function derivation step that combines the partial functions by obtaining a coefficient interpolated by the coefficient of the partial function for each of the overlapped areas and by deriving a function represented by the interpolated coefficient.

8. Claims 20 and 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMARES WASHINGTON whose telephone number is (571)270-1585. The examiner can normally be reached on Monday thru Friday: 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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June 13, 2008